

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	223	((imoto near tsutomu) (masao near oda)). in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 19:57
S2	2	S1 and "136"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 19:57
S3	708	136/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 19:58
S5	70	S3 and (two more) near semiconduct\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 19:58
S6	40	("20010046244"   "20020040728"   "20020071952"   "20020130311"   "20020172820"   "20020192441"   "20030142944"   "20030145779"   "20030226498"   "20040003838"   "20040026684"   "20040095658"   "20050126628"   "20050150541"   "5260957"   "5293050"   "5354707"   "5422489"   "5505928"   "5571612"   "5585640"   "5613140"   "5690807"   "5720827"   "5751018"   "5897945"   "5990479"   "5997832"   "6036774"   "6048616"   "6136156"   "6225198"   "6239355"   "6245988"   "6306736"   "6322901"   "6413489"   "6501091"   "6878871").PN. OR ("7087833").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/12 20:00
S7	8	("20020108649"   "20020117201"   "5885368"   "6150605"   "6300559"   "6310282"   "6559375").PN. OR ("6677516").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/12 20:08

## EAST Search History (Prior Art)

S8	0	200-285957	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 20:20
S9	2	2000-285957	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 20:21
S10	10	2000-195569	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 20:21
S11	2	"20010004901"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/11/12 20:23
S12	334	S3 and (two more) with semiconduct\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 20:30
S13	255	S12 and dye	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 20:30
S14	268	S12 and (dye pigment colorant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 20:30
S15	42	\$"285975"	JPO	OR	ON	2009/11/12 20:53
S16	47	\$"195569"	JPO	OR	ON	2009/11/12 20:55
S17	53	\$"143771"	JPO	OR	ON	2009/11/12 20:58

## EAST Search History (Prior Art)

S18	47	"222971"	JPO	OR	ON	2009/11/12 20:59
S19	137	simmons.in.	JPO	OR	ON	2009/11/12 21:01
S20	0	S19 and "136"/\$.ccls.	JPO	OR	ON	2009/11/12 21:01
S21	8706	simmons.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 21:01
S22	0	S21 and "136"/\$.ccls.	JPO	OR	ON	2009/11/12 21:01
S23	2	S21 and "136"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 21:02
S24	34	"6278056"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/12 21:05
S25	487	"136"/\$.ccls. and dop\$4 with (bandgap (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 15:43
S26	48	"136"/263.ccls. and dop\$4 with (bandgap (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 15:43
S27	65	"136"/263.ccls. and dop\$4 same (bandgap (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 15:47

## EAST Search History (Prior Art)

S28	45	"136"/\$.ccls. and dop\$4 near (bandgap (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 15:48
S29	61	"136"/\$.ccls. and dop\$4 with (bandgap (band near gap)) with (concentration content percentage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 15:54
S30	1475	"136"/\$.ccls. and grad\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:07
S31	60	"136"/263.ccls. and grad\$4 and (bandgap (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:08
S32	14	"4190950"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:08
S33	10	S32 and dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:10
S34	55	S31 and dop\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:12

## EAST Search History (Prior Art)

S35	0	"136"/263.ccls. and grad\$4 same (bandgap (band near gap)) same dop44	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:13
S36	0	"136"/263.ccls. and grad\$4 same (bandgap (band near gap)) same dop\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:13
S37	15	"4105470" and dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 16:15
S38	34	(increas\$5 decreas\$5 reduc\$5) near (bandgap (band near gap)) near dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:08
S39	0	S38 and 136/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:11
S40	16	S38 and (solar photovoltaic photoelectric optoelectric photocell optoelectronic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:11
S41	16	S38 and (solar photovoltaic photoelectric photoelectrochemical electrochemical optoelectric photocell optoelectronic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:12

## EAST Search History (Prior Art)

S42	667981	(solar photovoltaic photoelectric photoelectrochemical electrochemical optoelectric photocell optoelectronic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:12
S43	413	S42 and (increas\$5 decreas\$5 reduc\$5) with (bandgap (band near gap)) with dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:12
S44	2	"20090194149"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:13
S45	36	136/263.ccls. and dop\$4 with semiconduct\$5 with (bandgap (band near gap) absorption wavelength)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:17
S46	0	"200900194149"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:28
S47	2	"20090194149"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:28
S48	51652	(solar photovoltaic photoelectric photoelectrochemical electrochemical optoelectric photocell optoelectronic) and (dye pigment colorant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:37

## EAST Search History (Prior Art)

S49	5	S48 and (increas\$5 decreas\$5 reduc\$5) near (bandgap (band near gap)) near dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:38
S50	40	S48 and (increas\$5 decreas\$5 reduc\$5) with (bandgap (band near gap)) with dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 19:38
S51	2	"2002134426"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:15
S52	2	"20020134426"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:16
S53	20	(imahori near hiroshi).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:32
S54	119	"136"/\$.ccls. and different near dopant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:33
S55	46	"136"/\$.ccls. and (different near dopant) same (bandgap wavelength absor\$7 (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:35

## EAST Search History (Prior Art)

S56	15	scher.in. and different near dopant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 20:41
S57	40	("20010046244"   "20020040728"   "20020071952"   "20020130311"   "20020172820"   "20020192441"   "20030142944"   "20030145779"   "20030226498"   "20040003838"   "20040026684"   "20040095658"   "20050126628"   "20050150541"   "5260957"   "5293050"   "5354707"   "5422489"   "5505928"   "5571612"   "5585640"   "5613140"   "5690807"   "5720827"   "5751018"   "5897945"   "5990479"   "5997832"   "6036774"   "6048616"   "6136156"   "6225198"   "6239355"   "6245988"   "6306736"   "6322901"   "6413489"   "6501091"   "6878871").PN. OR ("7087833").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/15 20:43
S58	13	S57 and dopant	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/15 20:43
S59	12	S57 and dopant and (bandgap (band near gap) absorption wavelength)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/15 20:45
S60	5	S57 and dopant same (bandgap (band near gap) absorption wavelength)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/15 20:48
S61	13	S57 and dop\$4 same (bandgap (band near gap) absorption wavelength)	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/15 20:49
S62	26	("4152535"   "4272641"   "4401840"   "4433202"   "4625071"   "4633030"   "4923524"   "4947219"   "5213670"   "5215599"   "5279686"   "5319220").PN. OR ("5720827").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/15 21:07
S63	25	S62 and dop\$4	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/15 21:09
S64	0	scher.in. and (different near dop\$4).clm.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/15 21:12



## EAST Search History (Prior Art)

S65	30	"136"/\$.ccls. and (different near dop\$4) with (bandgap absor\$7 wavelength (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:14
S66	65	"136"/\$.ccls. and (concentration near dop\$4) with (bandgap absor\$7 wavelength (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:18
S67	0	"136"/\$.ccls. and (different near concentration near dop\$4) with (bandgap absor\$7 wavelength (band near gap))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:18
S68	0	d136/263.ccls. and dop\$4 near semiconduct\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:25
S69	41	136/263.ccls. and dop\$4 near semiconduct\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:25
S70	5	136/263.ccls. and dop\$4 near (concentration and semiconduct\$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:27
S71	52	136/263.ccls. and dop\$4 with (concentration and semiconduct\$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:28

## EAST Search History (Prior Art)

S72	2	"20090194149"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 21:35
S73	502882	(solar near cell) photovoltaic photoelectric optoelectronic photoelectric photoelectrochemical electrochemical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:06
S74	1953	S73 and (different with (dop\$4 and (bandgap absor\$7 wavelength (band near gap) energy)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:08
S75	392	S73 and (different near (dop\$4 and (bandgap absor\$7 wavelength (band near gap) energy)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:08
S76	9	("4634641").URPN.	USPAT	OR	OFF	2009/11/15 22:12
S77	46	(bandgap absor\$7 wavelength (band near gap) energy) and (("same" near semiconductor) with (different near dop\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:35
S78	16	(bandgap absor\$7 wavelength (band near gap) energy) same (("same" near semiconductor) with (different near dop\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:37
S79	10	S78 and S73	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:39

## EAST Search History (Prior Art)

S80	708	136/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:41
S81	1790	photoelectrochemical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:41
S82	1307	(S80 S81) and dop\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:42
S83	76	(S80 S81) and grad\$5 with semiconduct\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:47
S84	67	S83 and dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:48
S85	55	((titanium near oxide) Tio2) same dop\$5 same (strontium sr!) same (srtio3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 22:57
S86	5	S85 and S73	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:05

## EAST Search History (Prior Art)

S87	54	srtio3 same tio2 same dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:11
S88	32285	(srtio3 (strontium near titanium near oxide)) same (tio2 titanium near oxide) same dop\$5 (sro! (strontium near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:14
S89	39	(srtio3 (strontium near titanium near oxide)) with (tio2 titanium near oxide) with dop\$5 with (sro! (strontium near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:14
S90	0	(srtio3 (strontium near titanium near oxide)) with (tio2 titanium near oxide) adj dop\$5 adj (sro\$2 (strontium near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:15
S91	0	(srtio3 (strontium near titanium near oxide)) with (tio2 titanium near oxide) near dop\$5 near (sro\$2 (strontium near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:15
S92	0	(srtio3 (strontium near titanium near oxide)) same (tio2 titanium near oxide) near dop\$5 near (sro\$2 (strontium near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:15
S93	0	(srtio3 (strontium near titanium near oxide)) same ((tio2 titanium near oxide) near dop\$5 near (sro\$2 (strontium near oxide)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:15

## EAST Search History (Prior Art)

S94	0	(srtio3 (strontium near titanium near oxide)) and ((tio2 titanium near oxide) near dop\$5 near (sro\$2 (strontium near oxide)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:16
S95	87	(srtio3 (strontium near titanium near oxide)) same ((tio2 titanium near oxide) same dop\$5 same (sro\$2 (strontium near oxide)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:16
S96	21	(S80 S81) and (bandgap (band near gap) absor\$7 wavelength) same (grad\$5 with semiconduct\$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/15 23:22
S97	2	"US 20070113889"	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2009/11/16 11:47
S98	25	136/263.ccls. and hydrothermal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 11:48
S99	0	438/4.ccls. and hydrothermal near react\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 11:52
S100	4	"438"/\$.ccls. and hydrothermal near react\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 11:53
S101	42	"438"/38.ccls. and ((titanium near oxide) titania tio2)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 11:54

## EAST Search History (Prior Art)

S10 2	1529	(increas\$5 decreas\$5 reduc\$5 chang\$5 manipulat\$5) with (bandgap (band near gap) (conduction near band)) with dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 12:39
S10 3	137	S102 and "136"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 12:39
S10 4	708	136/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 12:41
S10 5	1790	photoelectrochemical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 12:41
S10 6	10	S102 and (S104 S105)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 12:41
S10 7	4130788	(tio2 sio2 zno nb2o5 zro\$1 ceo\$1 wo\$1 al2o3 cualo2 srtio3 srcu2o) (increas\$5 decreas\$5 reduc\$5 chang\$5 manipul\$5) with (bandgap (band near gap) (conduction near band)) with dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 13:48
S10 8	195	(tio2 sio2 zno nb2o5 zro\$1 ceo\$1 wo\$1 al2o3 cualo2 srtio3 srcu2o) same (increas\$5 decreas\$5 reduc\$5 chang\$5 manipul\$5) same (bandgap (band near gap) (conduction near band)) same dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 13:48
S10 9	42	\$"285975"	JPO	OR	ON	2009/11/16 14:07
S11 0	0	136/263.ccls. and (drift\$5 grad\$5)	JPO	OR	ON	2009/11/16 14:53

## EAST Search History (Prior Art)

S11 1	171	136/263.ccls. and (drift\$5 grad\$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 14:53
S11 2	3	("20030127129"   "6150605").PN. OR ("6849798").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/11/16 15:08
S11 3	20	"4105470"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 15:23
S11 4	19	136/263.ccls. and (drift grad\$5) with (semiconductor tio2 sio2 zno nb2o5 zro\$1 ceo\$1 wo\$1 al2o3 cualo2 srtio3 srcu2o)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 15:24
S11 5	533421	(solar near cell) photoelectric photovoltaic photocell optoelectric optoelectronic \$5electrochemical	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 15:30
S11 6	47	\$"195569"	JPO	OR	ON	2009/11/16 16:07
S11 7	4	((band near gap) bandgap (band near energy) (band near conduction)) with (drift\$ grading graded) with dop\$5	JPO	OR	ON	2009/11/16 20:23
S11 8	352	((band near gap) bandgap (band near energy) (band near conduction)) with (drift\$ grading graded) with dop\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 20:23
S11 9	170	"6766817"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:02

## EAST Search History (Prior Art)

S12 0	7	"20060107994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:04
S12 1	2	10/543050	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:09
S12 2	202	photogalvanic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:40
S12 3	56	"008741"	JPO	OR	ON	2009/11/16 21:45
S12 4	6	nakamura.in. and "008741"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:46
S12 5	561	nakamura.in. and second near metal\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:47
S12 6	4	S125 and "136"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 21:47
S12 7	2	(vanadium near phosphorous near oxide)	JPO	OR	ON	2009/11/16 22:44
S12 8	77	(vanadium near phosphorous near oxide)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 22:45



## EAST Search History (Prior Art)

S129	99	(cis cigs (copper near oxide)) same (VPO (vanadium near phosphorous near oxide))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 22:49
S130	17	"6046399"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/11/16 23:03

## EAST Search History (Interference)

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